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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,089	05/31/2006	Tetsuro Mizushima	128197	9465

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EXAMINER	
HIGGINS, GERARD T	
ART UNIT	**PAPER NUMBER**
1794	

MAIL DATE	DELIVERY MODE
06/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/581,089	MIZUSHIMA ET AL.	
	Examiner	Art Unit	
	GERARD T. HIGGINS	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-13,15-17,19-26 and 29* is/are pending in the application.

4a) Of the above claim(s) *20-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-13,15-17,19,25,26 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/18/2009 has been entered.

Response to Amendment

2. The amendment filed 05/18/2009 has been entered. Currently, claims 1-6, 8-13, 15-17, 19-26, and 29 are pending, claims 20-24 are withdrawn, and claims 7, 14, 18, 27, and 28 are cancelled.

Claim Rejections - 35 USC § 103

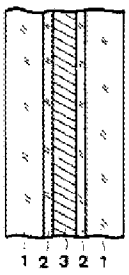
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 6, 8, 11, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. (JP 01-231082) in view of Otaki et al. (JP 2002-236439) as evidenced by Travnicek (3,996,187).

With regard to claim 1, Yoshinaga et al. disclose the device of Figure 1.

第 1 図



They disclose an optical component comprised of a holographic film **3**, which is equivalent to applicants' optical material layer, an index of refraction matching fluid **2** covering the holographic film, which may be silicone oil (an organosilicon resin layer), and then a substrate **1** and solid component **1**, which are both glass substrates; however, they do not specifically set forth the materials of the holographic recording layer.

Otaki et al. teach a volume holographic recording medium. The recording layer is comprised of an organometallic polymer of general formula (1) [0026]-[0027] or general formula (2) [0036]-[0037], which undergoes hydrolysis polycondensation [0029]. These materials read on applicants' hydrolyzed solution of an inorganic matrix material having a Si-alkoxide particularly because general formula (2) teaches tetraethoxysilane, which is one of applicants' preferred materials according to their specification. The

solution is then applied to a base material film, which is equivalent to applicants' substrate [0059] to [0060], and dried to form the optical material layer [0063].

Since Otaki et al. and Yoshinaga et al. are both drawn to volume type holographic materials; it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the known holographic recording materials of Otaki et al. as the recording layer **3** of Yoshinaga et al. The results of which would have been completely predictable to one having ordinary skill in the art of holography; furthermore, one of ordinary skill would understand that an index of refraction liquid of silicone oil would be completely appropriate for the inorganic-organic hybrid recording materials of Otaki et al. as they have similar structural characteristics, and would therefore intrinsically have similar indices of refraction. This is further evidenced in Travnicek, which states that various silicone oils are known to have refractive indices of 1.43 to 1.49 (col. 2, line 55 to col. 3, line 9). The motivation for this combination can be seen at [0083] of Otaki et al., where they state that the materials of their invention have good performance with respect to sensibility and transparency, but also have toughness and thermal resistance.

With regard to the limitation that the optical material layer has a "thickness unevenness and the organosilicon resin layer is coated on the surface of the dried optical material layer and the total thickness of the organosilicon resin layer and the dried optical material layer is optically uniform," given the fact that Yoshinaga et al. in view of Otaki et al. disclose the same materials that comprise applicants' optical material layer, and also given the fact that the references make the optical material

layer in the same manner as applicants (i.e. coating on a substrate followed by drying); the Examiner deems the optical material layer of Yoshinaga et al. in view of Otaki et al. will intrinsically display unevenness as claimed. Additionally, the fact that index of refraction matching fluid is present is to correct the unevenness to optically uniform is an intended use limitation. Intended use limitations are not dispositive of patentability; however, given the fact that Yoshinaga et al. in view of Otaki et al. disclose an optical material layer and the method of making said optical material layer as claimed, and also given the fact that they disclose an organosilicon resin layer as claimed; it is clear to the Examiner that the organosilicon resin layer will perform applicants' intended use.

With regard to claims 6, 8, 11, and 15, the silicone oils of Yoshinaga et al. will intrinsically have an index of refraction that is approximately equal to or within 0.05 of the index of refraction of the inorganic-organic hybrid materials, [0046] and Travnicek values. The silicone oils are chosen to be an index of refraction matching layer, and therefore they will intrinsically satisfy the limitations of the abovementioned claims because when the optical material layer is comprised of more than one material the effective index of refraction will be a weighted average based on the molecular composition of the optical material layer. The silicone oil is chosen to be approximately the same as the effective/average refractive index of the optical material layer, which therefore means it will intrinsically be within the minimum and maximum indices of refraction; furthermore, it would have been obvious to one having ordinary skill in the art to vary the individual ratios of all the components in the optical material layer to arrive at

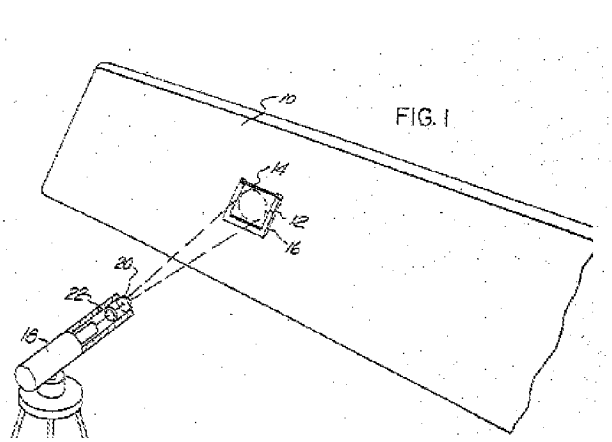
an appropriate index of refraction that can be matched by an appropriate index of refraction matching layer.

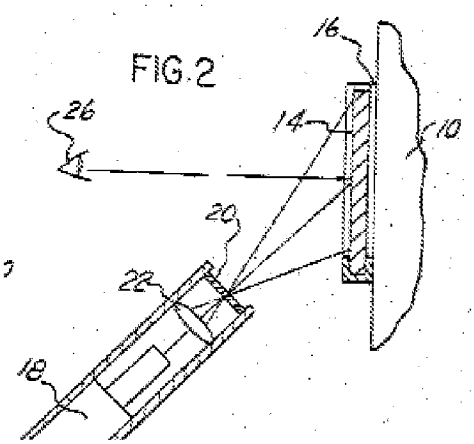
With regard to claim 19, the glass substrates **1** of Yoshinaga et al. are transparent to allow for recording onto the holographic film.

5. Claims 2 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. (JP 01-231082) in view of Otaki et al. (JP 2002-236439) as evidenced by Travnicek (3,996,187) as applied to claims 1 above, and further in view of Penn (3,897,995).

With regard to claim 2, Yoshinaga et al. in view of Otaki et al. as evidenced by Travnicek teach all of the limitations of applicants' claim 1 in section 13 above; however, they fail to teach a spacer layer that surrounds the outer periphery of the optical material layer provided between the substrate and the solid component, the space being formed to have a thickness larger than that of the optical material layer.

Penn teaches the device of Figure 1 and 2.





The holographic recording material has a spacer **16** that is thicker than the optical material layer **14** and separates the substrate **12** and the solid component **10**. It is clear that it is thicker than the optical material layer from the Figure 2, and also from the disclosure at col. 3, lines 52-67. The spacer surrounds the optical material layer on the outer periphery thereof.

Since Yoshinaga et al. in view of Otaki et al. as evidenced by Travnicek and Penn are all drawn to holographic recording materials, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the spacer units of Penn into the holographic recording plate of Yoshinaga et al. in view of Otaki et al. The results of the combination would have been predictable to one having ordinary skill in the art; further, each of the components would have performed the same in combination as they had separately. The motivation for doing so is to produce a holographic recording plate that had excellent parallelism between the optical recording material and the substrate. The use of spacers is well known in the art of holography; further, it is well-known to provide said spacers in order to establish a space to put the index of refraction matching layer seen in Yoshinaga et al.

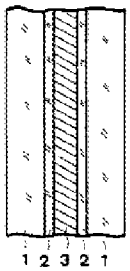
With regard to claim 29, there must necessarily be a space present, no matter how minuscule, in between the outer periphery of the optical material layer and an inner periphery of the spacer. If there was no space present the spacer and the optical material would necessarily be connected. Given the fact that there is a space present, the Examiner deems there will also necessarily be a part of the organosilicon resin layer

that will intercalate between the outer periphery of the optical material layer and an inner periphery of the spacer.

6. Claims 4, 9, 12, 16, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. (JP 01-231082) in view of Otaki et al. (JP 2002-236439) and Penn (3,897,995) as evidenced by Travnicek (3,996,187).

With regard to claim 4, Yoshinaga et al. disclose the device of Figure 1.

第 1 図



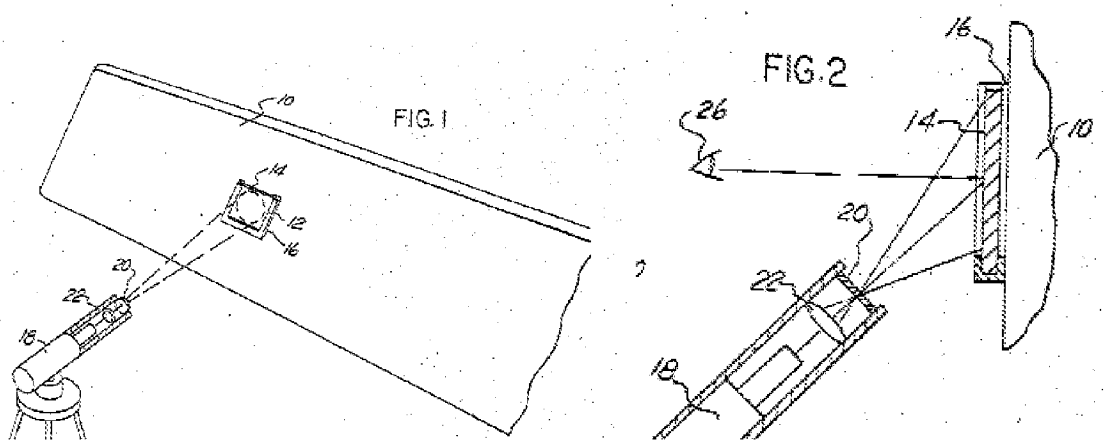
They disclose an optical component comprised of a holographic film **3**, which is equivalent to applicants' optical material layer, an index of refraction matching fluid **2** covering the holographic film, which may be silicone oil (an organosilicon resin layer), and then a substrate **1** and solid component **1**, which are both glass substrates; however, they do not specifically set forth the materials of the holographic recording layer and they fail to teach a spacer layer that surrounds the outer periphery of the optical material layer provided between the substrate and the solid component, the space being formed to have a thickness larger than that of the optical material layer.

Otaki et al. teach a volume holographic recording medium. The recording layer is comprised of an organometallic polymer of general formula (1) [0026]-[0027] or general formula (2) [0036]-[0037], which undergoes hydrolysis polycondensation [0029]. These materials read on applicants' hydrolyzed solution of an inorganic matrix material having a Si-alkoxide particularly because general formula (2) teaches tetraethoxysilane, which is one of applicants' preferred materials according to their specification. The solution is then applied to a base material film, which is equivalent to applicants' substrate [0059] to [0060], and dried to form the optical material layer [0063].

Since Otaki et al. and Yoshinaga et al. are both drawn to volume type holographic materials; it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the known holographic recording materials of Otaki et al. as the recording layer **3** of Yoshinaga et al. The results of which would have been completely predictable to one having ordinary skill in the art of holography; furthermore, one of ordinary skill would understand that an index of refraction liquid of silicone oil would be completely appropriate for the inorganic-organic hybrid recording materials of Otaki et al. as they have similar structural characteristics, and would therefore intrinsically have similar indices of refraction. This is further evidenced in Travnicek, which states that various silicone oils are known to have refractive indices of 1.43 to 1.49 (col. 2, line 55 to col. 3, line 9). The motivation for this combination can be seen at [0083] of Otaki et al., where they state that the materials of their invention have good performance with respect to sensibility and transparency, but also have toughness and thermal resistance.

With regard to the limitation that the optical material layer has a "thickness unevenness and the organosilicon resin layer is coated on the surface of the dried optical material layer and the total thickness of the organosilicon resin layer and the dried optical material layer is optically uniform," given the fact that Yoshinaga et al. in view of Otaki et al. disclose the same materials that comprise applicants' optical material layer, and also given the fact that the references make the optical material layer in the same manner as applicants (i.e. coating on a substrate followed by drying); the Examiner deems the optical material layer of Yoshinaga et al. in view of Otaki et al. will intrinsically display unevenness as claimed. Additionally, the fact that index of refraction matching fluid is present is to correct the unevenness to optically uniform is an intended use limitation. Intended use limitations are not dispositive of patentability; however, given the fact that Yoshinaga et al. in view of Otaki et al. disclose an optical material layer and the method of making said optical material layer as claimed, and also given the fact that they disclose an organosilicon resin layer as claimed; it is clear to the Examiner that the organosilicon resin layer will perform applicants' intended use.

Penn teaches the device of Figure 1 and 2.



The holographic recording material has a spacer **16** that is thicker than the optical material layer **14** and separates the substrate **12** and the solid component **10**. It is clear that it is thicker than the optical material layer from the Figure 2, and also from the disclosure at col. 3, lines 52-67. The spacer surrounds the optical material layer on the outer periphery thereof.

Since Yoshinaga et al. and Penn are drawn to holographic recording materials, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the spacer units of Penn into the holographic recording plate of Yoshinaga et al. in view of Otaki et al. The results of the combination would have been predictable to one having ordinary skill in the art; further, each of the components would have performed the same in combination as they had separately. The motivation for doing so is to produce a holographic recording plate that had excellent parallelism between the optical recording material and the substrate. The use of spacers is well known in the art of holography; further, it is well-known to provide said spacers in order to establish a space to put the index of refraction matching layer seen in Yoshinaga et al.

With regard to claims 9, 12, 16, and 25, the silicone oils of Yoshinaga et al. will intrinsically have an index of refraction that is approximately equal to or within 0.05 of the index of refraction of the inorganic-organic hybrid materials, [0046] and Travnicek values. The silicone oils are chosen to be an index of refraction matching layer, and therefore they will intrinsically satisfy the limitations of the abovementioned claims because when the optical material layer is comprised of more than one material the

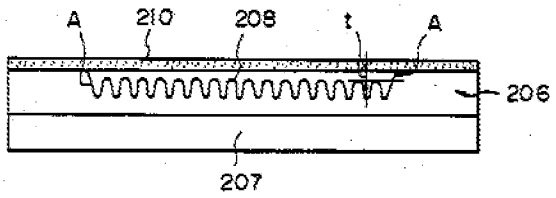
effective index of refraction will be a weighted average based on the molecular composition of the optical material layer. The silicone oil is chosen to be approximately the same as the effective/average refractive index of the optical material layer, which therefore means it will intrinsically be within the minimum and maximum indices of refraction; furthermore, it would have been obvious to one having ordinary skill in the art to vary the individual ratios of all the components in the optical material layer to arrive at an appropriate index of refraction that can be matched by an appropriate index of refraction matching layer.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. (JP 01-231082) in view of Otaki et al. (JP 2002-236439) as evidenced by Travnicek (3,996,187) as applied to claim 1 above, and further in view of Inokuchi et al. (5,064,258).

With regard to claim 3, Yoshinaga et al. in view of Otaki et al. as evidenced by Travnicek teach all of the limitations of applicants' claim 1 in section 13 above; however, they fail to teach a spacer layer that is formed between the substrate and the solid component by curing the outer periphery of the optical material layer, the spacer being formed to have a thickness larger than that of an inner portion of the optical material layer.

Inokuchi et al. teach the holographic device of Figure 22.

Fig. 22



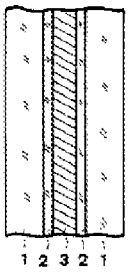
The device is comprised of an optical material layer **206**, which has been UV cured in such a way that the edge regions of the optical material layer are thicker than the inner portions (col. 15, lines 42-69).

Since Yoshinaga et al. in view of Otaki et al. as evidenced by Travnicek and Inokuchi et al. are all drawn to holographic devices, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the spacer of Inokuchi et al. into the device of Yoshinaga et al. in view of Otaki et al. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. The motivation for doing this combination would be to eliminate the step of applying an additional spacer, which is cumbersome, and also it would be cheaper to provide the spacer of the same material as the optical material layer.

8. Claims 5, 10, 13, 17, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. (JP 01-231082) in view of Otaki et al. (JP 2002-236439) and Inokuchi et al. (5,064,258) as evidenced by Travnicek (3,996,187).

With regard to claim 5, Yoshinaga et al. disclose the device of Figure 1.

第１図



They disclose an optical component comprised of a holographic film **3**, which is equivalent to applicants' optical material layer, an index of refraction matching fluid **2** covering the holographic film, which may be silicone oil (an organosilicon resin layer), and then a substrate **1** and solid component **1**, which are both glass substrates; however, they do not specifically set forth the materials of the holographic recording layer and they fail to teach a spacer layer that is formed between the substrate and the solid component by curing the outer periphery of the optical material layer, the spacer being formed to have a thickness larger than that of an inner portion of the optical material layer.

Otaki et al. teach a volume holographic recording medium. The recording layer is comprised of an organometallic polymer of general formula (1) [0026]-[0027] or general formula (2) [0036]-[0037], which undergoes hydrolysis polycondensation [0029]. These materials read on applicants' hydrolyzed solution of an inorganic matrix material having a Si-alkoxide particularly because general formula (2) teaches tetraethoxysilane, which is one of applicants' preferred materials according to their specification. The

solution is then applied to a base material film, which is equivalent to applicants' substrate [0059] to [0060], and dried to form the optical material layer [0063].

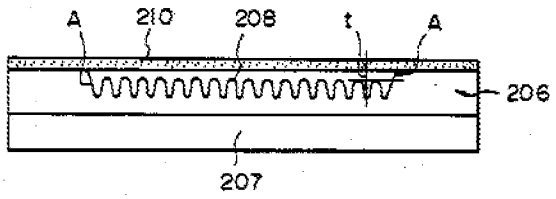
Since Otaki et al. and Yoshinaga et al. are both drawn to volume type holographic materials; it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the known holographic recording materials of Otaki et al. as the recording layer **3** of Yoshinaga et al. The results of which would have been completely predictable to one having ordinary skill in the art of holography; furthermore, one of ordinary skill would understand that an index of refraction liquid of silicone oil would be completely appropriate for the inorganic-organic hybrid recording materials of Otaki et al. as they have similar structural characteristics, and would therefore intrinsically have similar indices of refraction. This is further evidenced in Travnicek, which states that various silicone oils are known to have refractive indices of 1.43 to 1.49 (col. 2, line 55 to col. 3, line 9). The motivation for this combination can be seen at [0083] of Otaki et al., where they state that the materials of their invention have good performance with respect to sensibility and transparency, but also have toughness and thermal resistance.

With regard to the limitation that the optical material layer has a "thickness unevenness and the organosilicon resin layer is coated on the surface of the dried optical material layer and the total thickness of the organosilicon resin layer and the dried optical material layer is optically uniform," given the fact that Yoshinaga et al. in view of Otaki et al. disclose the same materials that comprise applicants' optical material layer, and also given the fact that the references make the optical material

layer in the same manner as applicants (i.e. coating on a substrate followed by drying); the Examiner deems the optical material layer of Yoshinaga et al. in view of Otaki et al. will intrinsically display unevenness as claimed. Additionally, the fact that index of refraction matching fluid is present is to correct the wave-like unevenness to optically uniform is an intended use limitation. Intended use limitations are not dispositive of patentability; however, given the fact that Yoshinaga et al. in view of Otaki et al. disclose an optical material layer and the method of making said optical material layer as claimed, and also given the fact that they disclose an organosilicon resin layer as claimed; it is clear to the Examiner that the organosilicon resin layer will perform applicants' intended use.

Inokuchi et al. teach the holographic device of Figure 22.

Fig. 22



The device is comprised of an optical material layer **206**, which has been UV cured in such a way that the edge regions of the optical material layer are thicker than the inner portions (col. 15, lines 42-69).

Since Yoshinaga et al. in view of Otaki et al. as evidenced by Travnicek and Inokuchi et al. are all drawn to holographic devices, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the

spacer of Inokuchi et al. into the device of Yoshinaga et al. in view of Otaki et al. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. The motivation for doing this combination would be to eliminate the step of applying an additional spacer, which is cumbersome, and also it would be cheaper to provide the spacer of the same material as the optical material layer.

With regard to claims 10, 13, 17, and 26, the silicone oils of Yoshinaga et al. will intrinsically have an index of refraction that is approximately equal to or within 0.05 of the index of refraction of the inorganic-organic hybrid materials, [0046] and Travnicek values. The silicone oils are chosen to be an index of refraction matching layer, and therefore they will intrinsically satisfy the limitations of the abovementioned claims because when the optical material layer is comprised of more than one material the effective index of refraction will be a weighted average based on the molecular composition of the optical material layer. The silicone oil is chosen to be approximately the same as the effective/average refractive index of the optical material layer, which therefore means it will intrinsically be within the minimum and maximum indices of refraction; furthermore, it would have been obvious to one having ordinary skill in the art to vary the individual ratios of all the components in the optical material layer to arrive at an appropriate index of refraction that can be matched by an appropriate index of refraction matching layer.

Response to Arguments

9. Applicant's arguments, see Remarks, filed 05/18/2009, with respect to the rejection of claim 29 under 35 U.S.C. 112, first paragraph and the rejection of claims 1-13, 15-17, 19, and 25-29 under 35 U.S.C. 112, second paragraph have been fully considered and are persuasive. The relevant rejections have been withdrawn.

10. Applicant's arguments filed 05/18/2009 have been fully considered but they are not persuasive.

Applicants are attempting to argue that the new limitations that the optical material layer is prepared by drying a material "containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide" is not taught by the prior art.

The Examiner respectfully disagrees and notes that applicants' optical material layer ***may*** also be an organic-inorganic hybrid material when dried as that is what applicants' specification teaches (please see page 9, lines 7-13 and page 12, line 25 to page 13, line 15 of applicants' specification). Applicants' claims do not preclude such an optical material layer.

Applicants' attention is also drawn to page 12, line 25 to page 13, line 1 of their specification, which states that chloropropyltriethoxysilane was hydrolyzed and employed in an inorganic matrix material of their invention. This reads on the organometallic compound of the general formula (1) of Otaki, which has at least one non-alkoxide type substituent. The Examiner respectfully disagrees with applicants'

assertion that "chloropropyltriethoxysilane is different from the material of formula (1) of Otaki." Upon hydrolyzing the material of formula (1) of Otaki or chloropropyltriethoxysilane of applicants' specification, the alkoxides will be hydrolyzed and polymerize to form an inorganic Si-O-Si backbone. This reads on the "inorganic matrix material having a Si-alkoxide" because the backbone of the siloxane polymer is purely inorganic.

It is again noted that applicants' claims are not limited to having only an "inorganic matrix material having a Si-alkoxide;" furthermore, according to their specification at page 13, lines 6-15 a photosensitive organic material is added to the hydrolyzed inorganic matrix material to make an organic-inorganic hybrid material. While applicants are correct in noting that chloropropyltriethoxysilane and 1-propylene-triethoxysilane are not identical, the fact remains that both are organometallic compounds that will form a purely inorganic matrix material after hydrolyzing their alkoxy groups; furthermore, the purpose behind the chloropropyl and 1-propylene substituents is to react with the organic monomers that are added to form the organic-inorganic hybrid material, which is seen in both applicants' specification and in the materials of Otaki.

Lastly, the Examiner directs applicants' attention to General formula (2) of Otaki, which can be a tetraethoxysilane [0036] and [0037]. The Examiner notes the presence of the exact same material in applicants' specification at page 12, line 25. This material upon hydrolyzation will form a purely inorganic matrix material of Si-O-Si bonds; furthermore, applicants' claims are somewhat confusing to refer to a Si-alkoxide,

evidenced as chloropropyltriethoxysilane, as an inorganic matrix material given the fact that upon hydrolyzation, it will remain organometallic, i.e. the chloropropyl group will remain attached to the silicon.

Applicants argue that the Examiner has not shown the benefits obtained by using the claimed material in forming the optical material layer.

In response to applicant's argument that their inorganic matrix material "exhibits excellent compatibility with the organosilicon resin layer," the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Additionally, it is noted by the Examiner that the claimed invention does not include this language.

With regard to applicants' arguments concerning the rejections of various dependent claims, it is noted by the Examiner that these references are teaching references to meet each of these dependent claims. The Examiner maintains that his primary rejections teach each of the limitations of applicants' independent claims 1, 4, and 5.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is

(571)270-3467. The examiner can normally be reached on M-Th 10am-8pm est. (Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Bernatz, acting SPE for Carol Chaney, can be reached on 571-272-1505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner
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